



KEPASSA Workshop and KEPASSA « Challenge »

❖ **KEPASSA – Key topics in orbit propagation applied to SSA**

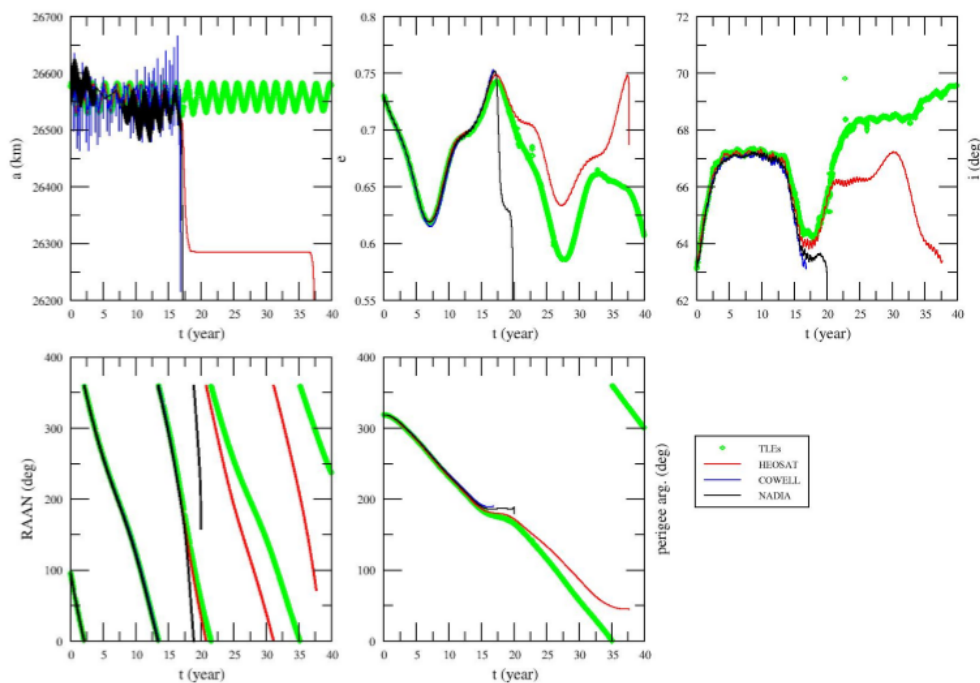
- Workshop / Expert meetings taking place +/- every two years since 2014
- Topics addressed during the workshop
 - Analytical & semi-analytical methods for long- and short-term orbit propagation.
 - High Earth Orbit and High Elliptical Orbit.
 - Third body and time dependence in the analytical method.
 - Resonances and chaos.
 - Propagation of orbit uncertainties and orbit determination.
 - Regularized numerical integration.
 - Gauss/Lagrange planetary equations.
 - Hamilton canonical equations.
 - Special functions.
 - Series expansions.
 - Symbolic Integration
 - Time Series
 - Hybrid and statistical methods
 - Software packages for orbit propagations

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- Next Workshop will take place in La Rioja (Spain)
 - 24 – 26 April 2019
- Important Dates
 - 14th February 2019 → Abstract Submission deadline
 - 3rd March 2019 → Abstracts notification of acceptance
 - 9th April 2019 → Registration deadline
 - 16th April 2019 → Final program

❖ KEPASSA Challenge

- Compare propagation tools performance on long term propagation of a highly eccentric object affected by tesseral of the geopotential and secular resonances of the 3rd body.
- **Challenge:** Compute the orbit of COSMOS 862 [COSPAR ID 76105A, #SSN 09495U] between March 1977 and December 2017 from TLEs between march 1977 and march 1978 (provided by KEPASSA to all participants)



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